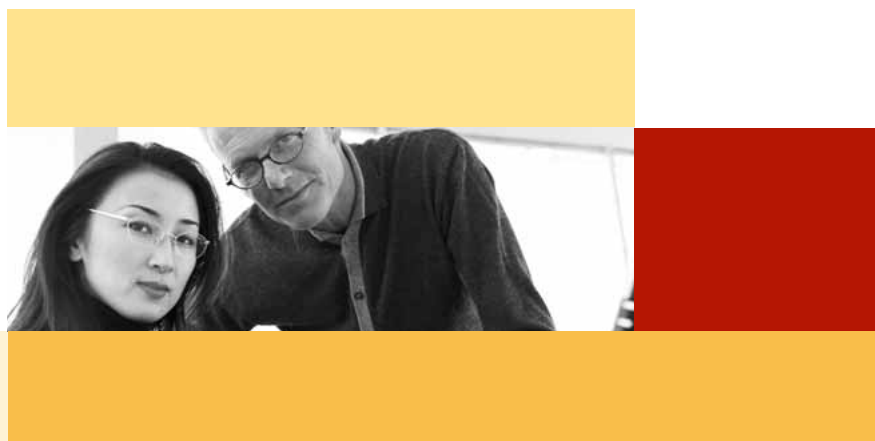




INFRASTRUCTURE FOR THE ON-DEMAND ENTERPRISE



Citrix Technical Support: Brief Troubleshooting Guide

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Citrix Technical Support: Brief Troubleshooting Guide

1. MetaFrame® Presentation Server for Windows®

Citrix® MetaFrame® Presentation Server is the easiest way to manage enterprise applications from a central location and access them from anywhere. The foundation of the MetaFrame Access Suite, Citrix MetaFrame Presentation Server is the world's most widely deployed presentation server for centrally managing heterogeneous applications and delivering their functionality as a service to workers, wherever they may be.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

1.1. Languages Supported

English, French, Spanish, German

1.2. Administration Guide

MetaFrame Presentation Server 3.0 for Windows Administrator's Guide [CTX103723](#)

1.3. Troubleshooting Questions to Ask

Gather general information

- What are the details of your environment – size of server farm, Win2003, Win2000, WAN, LAN, Service Packs?
- Run the CTXdataXP utility available from Citrix Technical Support in Dublin to collect environment information (MF XP only)
- Run the diagnostic tool from the access suite console (you can collect server farm information, MetaFrame Presentation Server computer information and event logs) – See [CTX104578](#) for more information
- Type of clients in use (If this is a client issue refer to the [ICA clients section](#))?
- What is the exact issue that you are having? (what is happening – what should happen?)
- What are the exact steps to reproduce the issue?
- When did it start? What triggered issue?
- Who is affected by issue (administrators and users)?
- Do you get an error (send screenshot) or an event in the Event Log?
- Can the issue be reproduced at the server console in a loop back session?
- Can the issue be reproduced when using RDP?
- What troubleshooting steps have you taken to resolve this issue?
- Have you tested with seamless and non-seamless connections?

Troubleshooting Installation

- Where in the install did the failure occur?
Send a screenshot of the last panel seen before the failure occurs
- Please obtain and send the %systemroot%\system32\icatrace.log file
- Are there any errors recorded in the event viewer? If so, please obtain and send
- Does the problem occur with local database (access or MSDE) or with Oracle/SQL?
If Oracle/SQL or other database, is it on a dedicated database server?
- Is the installation performed from a CD or a network share? Does it work if the CD is copied to the server?
- What account was used during the install?

NOTE: There are two different user accounts involved: the first is the user you are logged in as while you are performing the install. The second is the user account you specify while connecting to the SQL db or Oracle db during install.

- Send the Install log generated using msixexec.exe mps.msi/L*v install.log
- During the installation are you joining a farm or creating a new farm?
- Is the server ghosted from an image?
- Is the install a standard install or unattended install?
- Check the build number in the readme on the MetaFrame Presentation Server CD

Troubleshooting IMA service and DataStore

- What is the DS type, is it on a dedicated server? [CTX105257](#)
- Is a change farm possible to confirm that the DS is not corrupt? (ref page 342 of MPS 3.0 Admin Guide)
- Use Qfarm to identify which server is DC
- Does changing the Data Collector help? Farm Properties (Zone – Set Election Preference)
- Does the IMA service start? If not, what is the error message? Check event viewer – Send errors
- What is the currently loading plug-in? Check in:
HKLM\SOFTWARE\Citrix\IMA\Runtime\CurrentlyLoadingPlugin
- [CTX105292](#) – Check troubleshooting IMA service
- [CTX104578](#) – CDF – Send us the Log file from the server during an attempted IMA service restart –
and [CTX105227](#)
- [CTX539756](#) – Tracing IMA Subsystems
- Verify in the Admin guide that the MDAC is a supported version.
[CTX809548](#) – How to Determine the MDAC (Microsoft Data Access Components) Version

Troubleshooting Load Manager

- Do you have Advanced or Enterprise Edition of MetaFrame? Highlight server to set Edition
- Run qfarm /app and get us result (included in ctxdatapx)
- Are there many disconnected session (disc sessions do not use load balancing) – [CTX439031](#)?
- Is correct Load Manager showing correct info in CMC [CTX103441](#)? If incorrect get screenshot
- Does the issue persist when default load evaluators are used?
- Custom connections do not use load balancing and connect directly to a MF server?

Troubleshooting connectivity issues

- Is it the same behaviour with a local account from the server? With an admin account?
With a brand new user account?
- Can you ping the server and telnet the ICA port (1494 by default)?
- Can you connect using RDP?
- Do you use TCP/IP+HTTP or only TCP/IP? (check PN > application set settings > network protocol)
- Can you do a direct connection to the server? Using its Netbios name? IP address?
Using Program Neighbourhood, Web Interface or Published application?
- Does a loop back connection work (ICA connection from the server console back to the same server)?
- Can you delete and create a new ICA listener from the Citrix Connection Configuration tool?
- Can you capture a network trace of a successful and unsuccessful connection?
- Disable Session Reliability and try again (net stat on port 2598 – see if port is listening when Session Reliability is enabled)

Troubleshooting Printing Issues

- What kind of printer is it?
Client auto created/Client network printer/CMC assigned network printer/server load
- What is the make and model and driver of the printer?
- Is the driver installed on the MF server? (check in Print Server Properties | Drivers tab or CMC)
- Is driver mapping or compatibility list used?
(check in CMC | Printer Management | Drivers tab | Compatibility)
- Does the printer auto create if Universal Print Driver (UPD) is used?
(CMC | Printer Management | Properties | Universal Driver)
- For auto creation issues refer to [CTX681954](#) – Troubleshooting Citrix ICA Printer Auto creation
- For printer settings issues refer to [CTX959786](#) – User Defined Printer Properties
- Check the CMC | Policies node for any Citrix policies that control printing
- Is the printer issue only with a specific application?
- Are printers created synchronously or after application is displayed?
Check application properties | client options.
- [CTX458114](#) – Steps for Connecting Local Printers to Thin Client Devices
- [CTX232630](#) – How to Replicate Printers on Multiple MetaFrame Servers in a Server Farm
- [CTX774641](#) – Printer Driver Replication Failed for Certain Printers and Printer Drivers

Questions for Application Install & Integration Issues

- Is this application a multi user application Ref TechNet (check with vendor)?
- What is the name and version number of the application?
- If the app is custom app, what language was it written in? Is it a 16bit or 32bit app? Any other app details?
- Does the app run properly when you are logged in at the console?
- Do you have the same issue when you make an ICA connection to a desktop?
- Do you experience the same problem using a seamless connection? A fixed sized window? Colour depths?
- Is it working with an RDP client?
- Was the application installed using Add/Remove Programs? (change user/install mode)
- [CTX101709](#) – How to Troubleshoot Application Integration Issues
- Can you install the application on a server without Terminal Services?

Troubleshooting Performance Issues/Server Lock-ups

- What kind of server (IBM, Compaq, Dell, etc) and how much CPU and RAM?
- Under what conditions is the server lock-up seen?
- Does the slow down occur when connected using RDP?
- Is the server blue screening? What STOP code?
- Does the Event Viewer show any entries just before the slow down or trap occurs?
- Is a memory dump created? If not can you create one?
- If the server freezes completely, can you generate a full dump (Q244139)
- Can you see which Process and thread (TID) is hogging CPU using Qslice? (from Windows Resource Kit)
- Can you get a user dump of process that is using high CPU (Q278689) FTP to Citrix site – contact Citrix Technical Support in Dublin
- Troubleshooting blue screens Q216206
- If a process crashes a Dr Watson dump is generated, see Q308538 Q246084, then FTP to Citrix site – contact Citrix Technical Support in Dublin
- If your server crash is caused by Citrix then send/FTP delete-us the memory.dmp or user.dmp – FTP details available from Citrix Technical Support in Dublin.

1.4.

Related Knowledgebase Articles

- [CTX101892](#) Application Troubleshooting in a MetaFrame Environment
- [CTX564283](#) How to Troubleshoot 1003 and 1004 Terminal Server Licensing Errors
- [CTX040083](#) Troubleshooting and Explaining Citrix ICA Shadowing
- [CTX159159](#) Troubleshooting and Explaining Session Sharing
- [CTX089874](#) Troubleshooting and Explaining the Citrix Universal Print Driver, UPD
- [CTX424827](#) Troubleshooting and Installing the Citrix Web Console
- [CTX104216](#) Troubleshooting and Optimizing Digital Dictation
- [CTX086028](#) Troubleshooting Client Clipboard Issues
- [CTX881017](#) Troubleshooting MetaFrame XP Imported Network Print Servers
- [CTX103126](#) Troubleshooting Server to Client Content Redirection
- [CTX104891](#) Troubleshooting Slow Logoff
- [CTX101705](#) Troubleshooting Slow Logons
- [CTX051476](#) Troubleshooting the Deletion of AutoCreated Printers
- [CTX238200](#) Troubleshooting Various Client Drive Mapping Issues

1.5.

Other Relevant Information

- Advanced Concepts Guide [CTX104144](#)

2. Resource Manager

MetaFrame Administrators can use Resource Manager to monitor, report and collect server resource metrics, as well as the execution of processes, for all MetaFrame Presentation Servers in the server farm. Enterprise Edition of MPS is required.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

2.1. Languages Supported

English, Spanish, French, German

2.2. Administration Guide

[CTX103746](#) – Administrator's Guide – Resource Manager for MPS 3.0

2.3. Troubleshooting Questions to Ask

Installation

- RM is installed by default with Enterprise edition of MetaFrame Server
- Use add/remove programs to add or remove RM plug-ins for the Presentation Server Console

General

- [CTX104629](#) – Troubleshooting Resource Manager Issues

RM Summary Database

- What database type is being used? SQL/Oracle, please ensure the appropriate services are running?
- Can you back up your Summary Database, restore it to a temporary database, purge the unnecessary information and send that temporary database to Citrix Technical Support in Dublin?

2.4. Related Knowledgebase Articles

- [CTX103807](#) Webcast Resource Manager Architecture and Troubleshooting
- [CTX103248](#) Resource Manager Summary Database – Database connection error
- [CTX18438](#) Using Crystal Reports Templates With Citrix Resource Manager
- [CTX103121](#) Explaining the Resource Manager Node within the Citrix Management Console
- [CTX103021](#) How to Query the Resource Manager Database for Clientname and IP Address
- [CTX101581](#) An Unknown error occurred while trying to get the log for Resource Manager.
Error code: C0160AE3

3. Installation Manager

Installation Manager is a feature of MetaFrame Presentation Server, Enterprise Edition that allows you to rapidly deploy applications and software components to your servers from a central location.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

3.1. Languages Supported

English, Spanish, French, German

3.2. Administration Guide

CTX103718 – IM Administrator's Guide

3.3. Troubleshooting Questions to Ask

General

- Can you successfully install the program and run without Terminal Services?
- IM is installed by default with Enterprise edition of MetaFrame Server
- Use add/remove programs to add or remove IM plug-ins for the CMC
- Ensure the Citrix Installer service is running while the package is being installed on the Citrix – this can be checked in the Services.msc
- Ensure that the IM software is installed on each MF server
- Enterprise Edition is a requirement, check the Edition has been set correctly on each server or the Product codes on XP servers – this is done in the Management Console – right click server
- The MetaFrame farm must be licensed (refer to **MF Access Suite Licensing TFS**)
- Certain Features also require Feature Release licenses on MetaFrame XP
- Installation Manager hotfixes are released separately to the MPS hotfixes
<http://support.Citrix.com/hotfixes.jsp>
- Check to see if the issue you experiencing has been addressed in a hotfix

Packager

- During the packaging did the software actually complete and install properly (test if you can use the software in the normal way)?
- Packaging can not complete if a reboot takes place during the recording, choose to reboot later if an installation prompts you to reboot
- Packages must be recorded on the same Operating System as the target Operating System, application must be packaged separately for each Operating System
- The packager machine must be a clean machine (ref page 15 of IM admin guide)
- The Citrix packager does not acknowledge component file names that contain special characters (& * % etc.)
- If a folder with the hidden attribute is included in the package, the hidden attribute is not retained when the package is deployed to servers. The hidden attribute must be manually set on the folder after the package is deployed (refer to Windows help topic Permission for Files and folders)

Adding Packages to the Management Console

The network account used for IM installs is specified in the properties of the IM node of the Management (ref page 16 of IM admin guide). This account needs to have permissions on the file share where the software is stored.

Transform files and command line switches

When adding a package to the Management Console, the Citrix administrator is prompted with a pop-up window to enter any command line switch and/or specify a transform file. Depending on the Management Console Version, it may throw an error at this stage. The validity of the switch or command line is verified immediately by more recent Management Console. Test the switches and the transform with MSIXEC Microsoft Installer [Q314881](#).

Failed installation

- In the management console, go to the job tab, to see the status
- There is a job details button which should be used to check the log file generated
- Send the Install log generated using msixec.exe mps.msi /L*v install.log
- Check the Windows Event Log:
 - .WFS package errors under the source Gemini Installer
 - .MSI package errors under the source MsiInstaller
- Does the MSI file install successfully if Citrix is taken out of the scenario?
- Send the package or .msi and the .mst file to Citrix Technical Support in Dublin

Package does not run properly

The Citrix packager records the installation routine of an application so it can reproduce the installation on target servers. If a package is not packaged on a system that has been rolled back to clean, the recording can contain changes that keep the application from working correctly. To overcome this challenge, roll back the Citrix Packager and re-create the package (Ref page 35 of IM admin guide).

3.4. Related Knowledgebase Articles

- [CTX104225](#) Error applying transforms. Verify that the specified transform paths are valid
- [CTX101787](#) Installation Manager concerns when executing CHFARM
- [CTX104859](#) Troubleshooting Installation Manager Issues

3.5. Other Relevant Information

- [CTX105048](#) Citrix Installation Manager Application Compatibility Guide: provides useful information about specific compatibility issues that occur if you package, install, or uninstall applications using Installation Manager

4. Web Interface

The Web Interface is an application deployment system that provides users with access to MetaFrame applications through a standard Web browser. The Web Interface employs Java and .NET technology executed on a Web server to dynamically create an HTML depiction of server farms for your users. Each user is presented with all the applications published in the server farms for that user. With the Web Interface, you have centralized application management capabilities and complete control over the application deployment process. You can create standalone Web sites for application access or Web sites that can be integrated into your corporate portal.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

4.1. Languages Supported

English, Spanish, French, German, Japanese

4.2. Administration Guide

[CTX103761](#) – Web Interface Administration Guide

4.3. Troubleshooting Questions to Ask

General questions

- What is the error message (send a screen shot)?
- What is the version of the web server (IIS5, IIS6, Apache, ...)?
- Is the error message coming from the web server or Web Interface
(Message from WI will be displayed in the page but you will still see a Citrix logo)?

Installation

- Do you have any COM error messages in the event viewer (send the event viewer files)?
- Has IWAM account been modified/disabled?
 - See Q297989 for more details
- Could you synchronise the IWAM account?
 - Configured Identity Is Incorrect for IWAM Account – Q297989
 - Description of Adsutil and MetaEdit Utilities Used to Modify the Metabase – Q240225

Authentication

- What is the type of authentication in use (Smart card, single sign-on, Explicit, NDS,...)?

Methods for authenticating to the Web Interface

- ☐ Anonymous login
- ☐ Smart card with Single sign-on
- ☐ Smart card
- ☐ Single sign-on
- ☒ Explicit login

- Has strong authentication being enabled?

☐ Enforce 2-factor authentication

☐ SafeWord

☒ RSA SecurID

- Do you have the same problem if you disable the strong authentication?
- Could you logon locally on the server running the XML service?
- Do the users go through a proxy server?

Enumerating Apps

- Did you recreate the LHC on the server(s) running the XML service ([CTX759510](#))?
- Could you use Tube to capture the XML traffic and send us the capture file (see troubleshooting tools [below](#))?

Launching Apps

- Does it happen with all the ICA clients?
- What is the version of the ICA client(s)?
- Has the template.ica file been modified?
- Could you send the template.ica?
- Has Network Address Translation been set up (send a screen shot)?
 - In the WIAdmin console, select the **DMZ-Settings** → **Network Address Translation** section

Network Address Translation Settings

Gateway, use the Secure Gateway Support page to configure Secure Gateway settings and (where appropriate) internal firewall address translation.

Default address translation setting

☒ Normal address

☐ Alternate address

☐ Translated address
(make sure the server address map below is configured)

☐ Secure Gateway Server
(make sure that Secure Gateway support is configured)

☒ with normal address

☐ with alternate address

☐ with translated address

Specific address translation settings

Client subnet:

Address

Mask

Option

☒ Normal address

☐ Alternate address

☐ Translated address
(make sure the server address map below is configured)

☐ Secure Gateway Server
(make sure that Secure Gateway support is configured)

☒ with normal address

☐ with alternate address

☐ with translated address

Setting map
(priority order,
highest first)

MetaFrame server address translation map
(for all clients using translated address)

Server address

Server port

Translated address

Translated port

Translation map
(priority order,
highest first)

- Is Secure Gateway enabled (send a screen shot)?
 - In the WIAAdmin console, select the **DMZ-Settings** → **Network Address Translation** section

Secure Gateway Support

Use this page to configure support for the Secure Gateway for MetaFrame Presentation Server. If you configure clients to use the Secure Gateway with translated address in the Network Address Translation page, use the internal firewall address translation map section below to provide the address translations.

Secure Gateway Server
(for all clients using the Secure Gateway)

Address (FQDN)

Port

Secure Ticket Authorities

URL

Secure Ticket Authority list
(priority order,
highest first)

☒ Use the Secure Ticket Authority list for load balancing

Internal firewall address translation map
(for all clients using the Secure Gateway with translated address)

Server address

Server port

Translated address

Translated port

Translation map
(priority order,
highest first)

- You can also send the Webinterface.conf file located in
 %systemDrive%\inetpub\wwwroot\Citrix\MetaFrame\conf
- Is same problem seen if you disable Secure Gateway?
- Can you download the ICA file (right click on the application icon) and launch it by double-clicking on it?
- Can you send the ICA file?
- Does it happen for all the users (internal, external)?

Troubleshooting Tools

CTX103935 – Web Interface 3.0 Metabase Repair Tool (WI3MBR)

Secure Ticket Authority Test Tool (STATest) – Contact Citrix Technical Support in Dublin

Capturing XML traffic (TUBE) – Contact Citrix Technical Support in Dublin

4.4. Related Knowledgebase Articles

- **CTX101993** Configuring Address Translation with Secure Gateway 2.0
- **CTX101898** MetaFrame XPe Feature Release 2 Novell Integration
- **CTX191516** Error: Your session with the Web-server expired. You have been logged out.
- **CTX102842** Desktop credential pass-through: Error: The web server is configured incorrectly to authenticate you using your requested login type
- **CTX102226** Error: The credentials supplied were invalid. Please try again
- **CTX101691** Active Server Pages error ASP 0113 and Applications are slow to enumerate within NFuse
- **CTX943036** Error: Citrix XML request too large, more than 4096 bytes
- **CTX528169** Error: The Citrix XML Service (on Citrix MetaFrame Server) could not generate a ticket because the ticket tag was null
- **CTX855252** Error: Could not set session field from a client location
- **CTX682297** Error: Unable to Launch NFuse Applications using HTTPS from Windows 95
- **CTX395275** Error: ICA file not found
- **CTX764017** Error 1720: There is a problem with this windows installer package

4.5. Other Relevant Information

- **CTX103215** Advanced Web Interface Customizations

5. Secure Gateway

Secure Gateway for MetaFrame (Secure Gateway) is a MetaFrame infrastructure component you can use to secure access to resources and applications hosted on servers running one or more MetaFrame server products. The Secure Gateway transparently encrypts and authenticates all user connections to protect against data tampering and theft.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=%2019&productID=184>

5.1. Languages Supported

English only

5.2. Administration Guide

- [CTX103759](#) – Secure Gateway for Windows Administration Guide
- [CTX103761](#) – Web Interface Administration Guide
- [CTX101846](#) – MetaFrame Secure Access Manager Administration Guide

5.3. Troubleshooting Questions to Ask

Installation

- What is the error message you are receiving?
 - Send screenshot of error message
- Did you install the server certificate on the Secure Gateway?
 - See Obtaining and Installing Server Certificates on P163 of the Admin Guide
 - Certificate Requirements in a Single-hop DMZ deployment – See P46 of the Admin Guide
 - Certificate Requirements in a Double-hop DMZ deployment – See P48 of the Admin Guide
- Are you installing Secure Gateway in a Single or Double-hop DMZ?
 - Single-hop DMZ deployment – See P58 of the Admin Guide
 - Double-hop DMZ deployment – See P74 of the Admin Guide

Configuration

- Are you integrating Secure Gateway with MSAM, MetaFrame or both?
 - Deploying Secure Gateway for Access to MSAM – See P55 of the Admin Guide
 - Deploying Secure Gateway for Access to MetaFrame Servers – See P87 of the Admin Guide
- What is the exact error message you are receiving?
 - Send screenshot or event log error message
 - Run the Diagnostic tool and send the output – See P126 of the Admin Guide

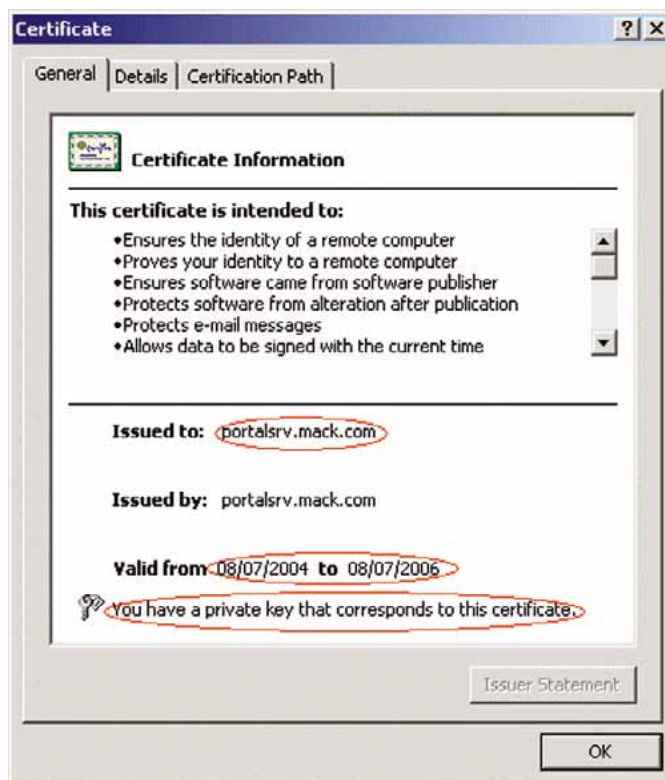
- Re-run the configuration to make sure you entered the correct details

Deploying Secure Gateway for Access to MSAM – Info from Admin Guide

- Single-Hop DMZ deployment – Logon Agent – See P61 of the Admin Guide
- Single-Hop DMZ deployment – Secure Gateway Service – See P63 of the Admin Guide
- Double-Hop DMZ deployment – Logon Agent – See P76 of the Admin Guide
- Double-Hop DMZ deployment – Secure Gateway Proxy – See P79 of the Admin Guide
- Double-Hop DMZ deployment – Secure Gateway Service – See P81 of the Admin Guide

Deploying Secure Gateway for Access to MetaFrame Servers – Info from Admin Guide

- Single-Hop DMZ deployment – STA – See P94 of the Admin Guide
 - Single-Hop DMZ deployment – Secure Gateway – See P94 of the Admin Guide
 - Double-Hop DMZ deployment – STA – See P101 of the Admin Guide
 - Double-Hop DMZ deployment – Secure Gateway Proxy – See P103 of the Admin Guide
 - Double-Hop DMZ deployment – Secure Gateway Service – See P105 of the Admin Guide
- Check the certificate to make sure its valid
 - Open the **MMC** console on the Secure Gateway server and load the Certificate snap-in for the local computer. Open the Web Server Certificate



- Verify that the *Issued to* address (circled above) matches the Fully Qualified Domain Name (FQDN) of the Secure Gateway Server
- Verify the *Valid from* and to date's are correct and not expired
- Verify that your certificate has *You have a private key that corresponds to this certificate.*
The server certificate must be paired with its private key in order to support SSL connections.
- Without this private key, the SG service fails to start, reporting "Unable to acquire certificate credentials".

User Errors

- Does the user have a valid root certificate installed?
 - To indicate your trust in a given CA, you must install their root certificate. Once a root certificate is installed on your workstation, your web browser or ICA client will automatically trust any server possessing a certificate signed by that CA.
 - To view your installed root certificates, select the **Tools > Internet Options** menu in Internet Explorer, view the **Content** tab, and click the Certificates button. This opens a **Certificates** dialog. View the **Trusted Root Certification Authorities** tab to see what CA certificates have been installed.
 - Double-click on the root certificate that trusts the server certificate on your Secure Gateway server.



- On the Certification Path, you will find the root to your Certification Authority and the Certificate status should read "This certificate is OK"
- Can the user resolve the FQDN of the Secure Gateway server?
 - Users will receive the following error message when trying to launch applications through Secure Gateway "Cannot connect to the Citrix server:
The Citrix SSL relay name could not be resolved (SSL error 40)"
 - The fully qualified domain name (FQDN) of the Secure Gateway server is not recognized by the client
 - Create a DNS record that resolves the FQDN of the Secure Gateway server or create an entry in the host file on the client devices
- What is the error message that the user receives?
 - Send screenshot or event log error message

Web Interface Integration

- Did you install and configure Web Interface?
 - See P39 of the Web Interface Admin Guide

MSAM Integration

- Did you install and configure MSAM?
 - See P50 of the MSAM Admin Guide
- Did you configure the Access Center to integrate published resources?
 - See P129 of the MSAM Admin Guide

Troubleshooting Tools

- MSAM Authentication Service Test Tool (ASTest) –
contact Citrix Technical Support in Dublin for access to this tool
- Secure Ticket Authority Test Tool (STATest) –
contact Citrix Technical Support in Dublin for access to this tool

5.4. Related Knowledgebase Articles

- [CTX103696](#) SSL error 4 when using ISA and Secure Gateway
- [CTX103569](#) The Citrix SSL relay name could not be resolved (SSL error 40)
- [CTX102765](#) Using a Private Certificate Authority with Secure Access Manager/Secure Gateway and a Secure Gateway proxy client requires a root certificate on the client device from that Private Certificate Authority
- [CTX104717](#) How to Enable Extended Activity Logging at the Logon Agent
- [CTX101993](#) Configuring Address Translation with Secure Gateway 2.0
- [CTX435418](#) Troubleshooting Disconnected Sessions in Secure Gateway
- [CTX711855](#) Common SSL Error Messages and their Causes
- [CTX102579](#) The SSL certificate could not be checked for revocation

5.5. Other Relevant Information

- [CTX101849](#) Secure Gateway Pre-installation Checklist –
- [CTX101867](#) Customizing the Logon Agent –
See [MSAM](#) or [WI](#) for relevant integration questions.

6. ICA® Clients

MetaFrame Presentation Server Clients are the components of MetaFrame Presentation Server that users run on their computers to access resources published on servers running MetaFrame Presentation Server. The Clients combine ease of deployment and use, and offer quick, secure access to applications, content and entire server desktops.

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

6.1. Languages Supported

Depends on the client version and client type but in general English, French, Spanish, German

6.2. Administration Guide

Each ICA client has its own administrator guide. These can be found in the download section of the Citrix web site –

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

Most common clients

- [CTX103754](#) – Client for 32-bit Windows Administrator's Guide
- [CTX103747](#) – Administrator's Guide – Client for Java – Version 8.x
- [Administrator's guide for UNIX Clients](#)

6.3. Troubleshooting Questions to Ask

For every problem

- Which version of the client are you using?
- Is it the same problem with the latest version (if not already in use)?
- Did it work at least once?

Installation

- What is the error message (send a screen shot)?
- How are you trying to install the client (client database, MSI, silent installation, ...)?
- Is it the same problem with a user with administrator's rights?

Connectivity

- Do you see the login box of the server or the connection failed before (or do you see the background screen of the server)?
- Any error on the event viewer of the server(s) (send the event viewer files)?
- Is it happening for all applications (all servers)?
- Is it the same issue with a non seamless (seamless) connection?
- Are you connecting through Web Interface, MSAM?
- If so, could you try connecting directly to the farm?
 - Please refer to the admin guide of the ICA client in use to know how to create an ICA connection

- Does it happen for all users?
- Is it the same problem if you disable the mappings (drives, printers, ...)?
 - You can disable mappings within the Citrix Connection Configuration → Client Settings section
- If connecting with Web Client, what is the browser version?
- If connecting with the java client, what is the Java Virtual Machine (JVM) version?
- Do you have the same problem if connecting with the RDP client?
- Are there any proxy/firewalls between the client and the server?
- Does the browser is configured to allow ActiveX script?

6.4. Related Knowledgebase Articles

- [CTX075552](#) Troubleshooting ICA 32-bit and Web Client Connectivity Issues
- [CTX101666](#) Prompting the acceptance of a Digital Certificate when downloading the Java Client
- [CTX101620](#) Changing Keyboard Layout and Type in Java Client
- [CTX101845](#) TS CAL Issue with the ICA Client for Java
- [CTX103079](#) Configuring the Java Client to Work with Private Certificates with MetaFrame Secure Access Manager
- [CTX104546](#) Updating ICA Web Clients for Deployment through Web Interface
- [CTX104386](#) to Determine the Client IP Address of a Web Interface/Nfuse Connection
- [CTX104179](#) UNIX and Macintosh clients automatically launch Java clients even if a Citrix client exists
- [CTX568194](#) ICA Client File Security: WEB Client Drive Access and the Webica.ini File Explained
- [CTX336368](#) What are the .SRC Files in the ICA Client Directory and on the Install Disks?
- [CTX859359](#) How the Win32 ICA Client determines the value for ClientName

6.5. Other Relevant Information

- [CTX103754](#) Client for 32-bit Windows Administrator's Guide – Version 8.x
- [CTX103289](#) The evolution of the ICA Win32 clients
- [CTX14753](#) Configuration Guide for the ICA Win32 Clients (INI File Reference)

7. UNIX® Client

ICA client for major Unix platforms, currently supported Linux, Solaris (Sparc/Intel), AIX IBM, HP-UX, SunOS, Compaq Tru64, SGI, SCO

<http://www.citrix.com/site/SS/downloads/downloads.asp?dID=2755>

7.1. Current Version

Variable depending on platforms

7.2. Languages Supported

English, Spanish, French, German, Japanese

7.3. Administration Guide

The Admin Guides for each client can be found in the downloads section of the Citrix web site –

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

7.4. Troubleshooting Questions to Ask

- Getting the answer to these questions can be useful background information which can help to solve the issue
- What version of Unix client is running?
- What OS version is the client running on?
- Kernel version? Uname – a output
- What is the desktop the customer is using?
- Window manager? Any customization?
- What kind of network connection are they using?
- Desktop, fixed windows or seamless? Any difference?
- Colordepth? Screen resolution? Any difference? Xdpinfo output
- Window properties, output of xprop – root command
- Is the problem specific for a particular platform , Linux, Solaris, HP-UX,AIX,etc?
- Configuration files, wfclient.ini, appsrv.ini in \$HOME/.ICAClient
- Wfclient.ini, appsrv.ini and module.ini, in the \$ICAROOT/config

7.5.

Related Knowledgebase Articles and Troubleshooting Tools

Clear problem description including snapshots and error message

- Does the client crash? If so, please send the core dump generated. If it crashes and there is not any, please use `ulimit -c unlimited` to activate dump generation
- Does the client give back an X error? Please run the client (wfica) through xmon.
Xmon can be downloaded from http://ftp.x.org/contrib/devel_tools/
- Connectivity issue? Any difference using different browsing, (http/https,tcpip)?
Network traces will be required, you can use ethereal from www.ethereal.com
- TS license issue, check CTX564283
- Keyboard issue, does it work locally? Which is the layout in use? `xmodmap -pke`, `xmodmap -pm`.
Output of `whatkey.exe/spy++` will be needed from within the remote session.
- [CTX103329](#) Printing issues
- [CTX103583](#) Smart card issues
- Does the client hang? What is the cpu utilization (top tool or equivalent), output of system call traces (trace for linux, truss for Solaris-AIX, tusc-HP/UX). What's the memory utilization?

7.6.

Other Information

Administrator's Guide – Common problems area

8. MetaFrame® Access Suite Licensing

Citrix has simplified licensing for MetaFrame Access Suite products, such as MetaFrame Presentation Server 3.0 and MetaFrame Conferencing Manager 3.0.. Both the license activation and license management processes are different.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=%2019&productID=12752>

8.1. Languages Supported

English, Spanish, French, German

8.2. Administration Guide

- [CTX102833](#) – MetaFrame Access Suite Licensing Guide
- [CTX103723](#) – MetaFrame Presentation Server 3.0 Administration Guide

8.3. Troubleshooting Questions to Ask

Installation

- What is the error message you are receiving?
 - Send screenshot of error message
- Did you install the license server on the same server as MetaFrame Presentation Server?
 - See P27 of the Access Suite Licensing Guide for more information
- Who are you logged in as when installing the License server?
 - It is recommended that you are logged on as a domain or local administrator when installing the license server. The user that installs the License server will automatically have full access to the License Management Console.

Configuration

- What is the exact error message you are receiving?
 - Send screenshot of error message
 - Check License Server event log
- Did you activate the license as per instructions in the Licensing Guide (See P.31)?
 - Make sure you enter the correct case-sensitive hostname of the license server
 - See point 4 on P.32 of the Access Suite Licensing Guide
- Clients or Servers Consume Multiple Licenses from the Citrix License Server
 - See Citrix Article [CTX103626](#) for information

License Server Clustering

- Are all 4 License Server Resources installed and online?
 - See P18 of the Licensing Cluster Guide for details – [CTX104878](#)
- If you move the Resources to another Node, do you still see the issue?
 - If you see the same issue on another node, then the problem may lie on the resource itself. To troubleshoot this, try uninstalling and reinstalling the resource
 - If the problem does not occur on another node, then the problem is on the active node, compare to a working node to troubleshoot
- Uninstall and reinstall the License Server Resource ctxlsclustres.dll
 - See P16 of the Licensing Cluster Guide for details – [CTX104878](#)

Troubleshooting Tools

- [CTX103919](#) – LMSTAT: Shows what licenses are in use
- [CTX103920](#) – Troubleshooting Connectivity Issues between a Computer Running MetaFrame Presentation Server and its License Server using NETSTAT
- [CTX103916](#) – LMDIAG: Diagnose License Check Out Issues

8.4. Related Knowledgebase Articles

- [CTX102833](#) MetaFrame Access Suite Licensing Guide
- [CTX103980](#) There are no licenses installed for the use of this MetaFrame Presentation Server
- [CTX103348](#) MetaFrame Presentation Server Edition Level Changes
- [CTX104259](#) Supporting Microsoft Clustering for the Citrix License Server shipping with Access Suite 3.0
- [CTX104878](#) Supporting Microsoft Clustering for MetaFrame Access Suite License Server 1.0.0

8.5. Most Common Problems

- Activating Licenses – make sure to enter the correct case-sensitive hostname of the license server
- [CTX103626](#) Clients or Servers Consume Multiple Licenses from the Citrix License Server
 - [CTX103980](#) There are no licenses installed for the use of this MetaFrame Presentation Server

8.6. Other Relevant Information

- [CTX104144](#) Advanced Concepts Guide for MetaFrame Presentation Server 3.0
- [CTX103752](#) Getting Started with MetaFrame Presentation Server 3.0

9. MetaFrame XP™ Licensing

- Uses 'V5' licenses
- V5 licenses are in the following format:
 - xxxxx-xxxxx-xxxxx-xxxxx-xxxxx (5x5x5x5x5)
 - E.g E42NZ-35+++43FH2-22CD1-@F*Q5
- As with V4 licenses, a machine code must be generated
- Enter the license into the MetaFrame Management Console under the License node to generate a machine code.
Two new **quintets** of alpha-numerics are added to the original license code. E.g
 - E42NZ-35+++43FH2-22CD1-@F*Q5-xxxxx-xxxxx
- Again, the license needs to be activated on www.mycitrix.com to receive it's validated Activation Code
- Add the license (along with the new Activation Code) to the License Node in the Management Console.
License has been installed!

Regarding the first quintet

- E42**N**Z-35+++43FH2-22CD1-@F*Q5: The 4th character of the first quintet of the license MUST be either a **Y** or a **N**. **Y** tells us that the customer is subscribed to Subscription Advantage. **N** means that they are not in the Subscription Advantage scheme
- If *anything else* is in the fourth position, the license is most likely illegal!
- E42NZ-35+++43FH2-22CD1-@F*Q5: The **E** at the beginning of the above example means the language of the license is **English**. The others are **German**, **Spanish**, **Japanese** or **French**.
- E42**N**Z-35+++43FH2-22CD1-@F*Q5 → **42** or **32**: A **42** here means that the license was created by Citrix. A **32** means that the license is a retail one i.e. bought by a company from a reseller/other intermediate

Regarding the second quintet

- E42NZ-**35**+++43FH2-22CD1-@F*Q5: The second quintet indicates a server license.
A '2522Q' in this position would denote a connection license
- The 35 means that the license was manually activated
- If it was a 55 instead, it would mean that the license was a self-activating license
- The +++ means that the license allows for unlimited connections (not cheap!)
- For a connection license e.g. '2522Q', the 'Q' at the end denotes the license count itself
Q = 20 connection licenses. The others are:
 - 7 = 5 connection licenses
 - D = 10
 - K = 15
 - Q = 20
 - N = 50
 - 6 = 100

- MetaFrame XP farms only need **one server per farm** to be licensed
- Server licenses are language dependant – a German server license can only run on a German-language server. All the other servers in the farm can be in different languages, but at least one must be in German
- MF-XP Licenses are stored in the farm's datastore and can be entered there from any system using the Management Console
- Connection licenses are completely independent of language and are all pooled into the overall farm license pool
- MF-XP consists of base licenses i.e. the license of the server itself, and Feature Release licenses i.e. for any FR installed. For example, if you upgrade from FR2 to FR3, you need specific FR3 licenses – the FR2 ones are no longer valid. Same goes for upgrading from MF-1.8 to any FR of MF-XP or MPS 3.0

10. MetaFrame® Secure Access Manager

Citrix MetaFrame Secure Access Manager provides secure, single-point access over the Web to any enterprise resource, including client/server, legacy, and Web applications, Internet and intranet sites, streaming media, documents, network file services, and XML-based Web services.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=%2019&productID=184>

10.1. Languages Supported

English, Spanish, French, German

10.2. Administration Guide

- [CTX101846](#) – MetaFrame Secure Access Manager Administration Guide
- [CTX103759](#) – Secure Gateway for Windows Administration Guide

10.3. Troubleshooting Questions to Ask

Installation

- What is the error message you are receiving?
 - Send screenshot of error message
- Are you doing a single or multiple server farm install?
 - Provide details of your setup
- Are you providing fault tolerance for your MSAM environment?
 - See [CTX103219](#)
- Did you follow the instructions in the readme and install the pre-requisites?
 - [CTX101851](#) – MetaFrame Secure Access Manager Readme for Windows 2000
 - [CTX101852](#) – MetaFrame Secure Access Manager Readme for Windows 2003
 - See P34 of the MSAM Admin Guide for a list of pre-requisites
- What type of Database did you choose?
 - See P54/55 of the MSAM Admin Guide for details
- Who are you logged in as when installing MSAM?
 - See P50 of the MSAM Admin Guide for details

Configuration

- Are you integrating Secure Gateway with MSAM?
 - Deploying Secure Gateway for Access to MSAM – See P55 of the Admin Guide
- What is the exact error message you are receiving?
 - Send screenshot of error message
- Are all MSAM Services started?
 - See P103 of the MSAM Admin Guide for a list of services on the MSAM Server

Authentication Error

- Is the error message the same for internal and external users?
 - Run tests with internal users logging on directly to MSAM and remote users logging on via the Logon Agent and see if both sets of users see the same problem.
- What version of browser has the user installed?
 - See Web browser requirements on P36 of the MSAM Admin Guide

Launching Applications

- What is the error message you are receiving?
 - Send screenshot of error message
- Is it the same error for internal and external users?
 - Run tests with internal users logging on directly to MSAM and remote users logging on via the Logon Agent and see if both sets of users see the same problem
 - For external users, make sure that they have followed the MetaFrame integration for MSAM, See P129 of the MSAM Admin Guide
- If using Secure Gateway – did you configure Secure Gateway options in the Access Center?
 - See P164 of the MSAM Admin Guide

Troubleshooting Tools

- MSAM Authentication Service Test Tool (ASTest) –
contact Citrix Technical Support in Dublin for access to this tool
- Secure Ticket Authority Test Tool (STATest) –
contact Citrix Technical Support in Dublin for access to this tool

10.4. Related Knowledgebase Articles

- [CTX103717](#) Guidelines for Deploying MetaFrame Secure Access Manager
- [CTX102767](#) Installing MetaFrame Secure Access Manager on Windows Server 2003
- [CTX103372](#) How to disable farm detection during logon in MSAM
- [CTX102619](#) The Alert Broadcaster CDA fails to display Alert Messages
- [CTX101869](#) Secure Access Manager Version 2.0 missing icons in the Program Neighborhood CDA
- [CTX104183](#) Program Neighborhood CDA Icons Not Showing Up in Access Center for Windows 2003 Environment
- [CTX320916](#) Program Neighborhood CDA Add-in

10.5. Most Common Problems

- [CTX103717](#) Deployment of MSAM
- [CTX102767](#) Installation on Windows 2003

10.6. Other Relevant Information

- [CTX103717](#) Guidelines for Deploying MetaFrame Secure Access Manager –
See [Secure Gateway section](#) for relevant Secure Gateway integration questions

11. MetaFrame® Password Manager

Designed to work seamlessly with Citrix MetaFrame Presentation Server, Citrix MetaFrame Secure Access Manager, and Citrix MetaFrame Conferencing Manager, Citrix MetaFrame Password Manager provides password security and single sign-on access to Windows, Web, proprietary, and host-based applications running in the MetaFrame environment as well as local applications on the desktop. Users authenticate once and MetaFrame Password Manager does the rest, automatically logging on to password-protected information systems, enforcing password policies, monitoring all password-related events, and even automating user tasks, including password changes.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=7181>

11.1. Languages Supported

Console

- English

Agent

- English, French, Spanish, German

11.2. Administration Guide

- [CTX104114](#) – MetaFrame Password Manager Administrator's Guide

11.3. Troubleshooting Questions to Ask

Preparation (active Directory, share folder)

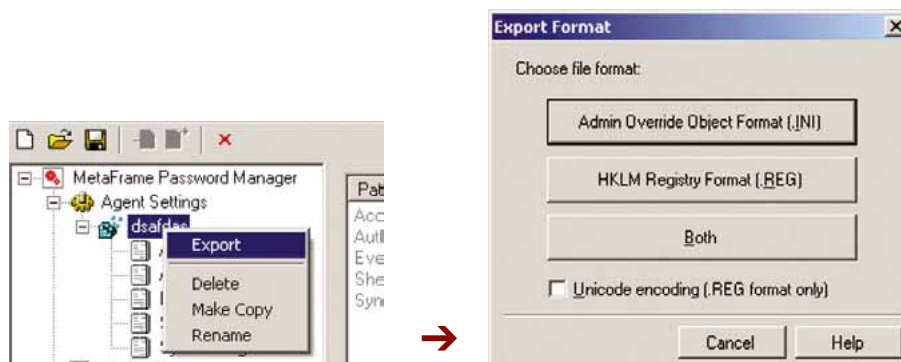
- Which type of synchronization are you trying to set up (Active Directory, Shared Folder)?
 - Page 33 Admin Guide (Planning for Synchronisation)
- When you're trying to modify the AD schema, are you using a user account with schema admin rights?
 - Use Active Directory snap-in to see the groups the user belongs to
- What is the error message (send a screen shot)?
- Can you replicate the schema between the domain controllers?
 - Using Active Directory Schema snap-in
 - How To View and Transfer FSMO Roles in Windows Server 2003 – Q324801
- Did you create the shared folder with the tool delivered by Citrix or manually?
 - Page 35 MPM Admin Guide (Planning for Synchronization Using a Shared Folder)
- For migrating from Shared Folder to AD synchronisation
 - Page 135 MPM Admin Guide (Migrating from Shared Folder to Active Directory Synchronization)

Installation (console/agent)

- What is the error message (send a screen Shot)?
- Did you create the agent's MSI file using the Password Manager Console?
 - Page 111 MPM Admin Guide (Delivering Information to Agents)
- Do you have the same problem with a user that has administrator's rights?

Synchronisation

- What is the error message (send Screen Shot)?
- Is the machine where the agent installed part of the same domain as the synchronization point (AD, shared folder)?
- If using a shared folder, could you reach the folder by its UNC path ([\\server\sharefolder](#))?
- If using AD, can you ping the domain (ping domain.extension)?
- Does the registry key HKEY_LOCAL_MACHINE\SOFTWARE\Citrix\MetaFrame Password Manager\Extensions\SyncManager\Syncs\<syncname> contains the correct value for the synchronization?
 - If using shared folder, you should see a value for SSOSyncType = FileSyncPath and then in the server node you should find a value like \\<serverName>\<shareFolder>
 - If using AD, the value of SSOSyncType = ADSyncPath with no server's folder
 - Export a registry file from the Password Manager Console and apply it to the client machine. Does it help?



Getting new settings (agent, application definition)

- Did you configure the SSO support in the console to push the new settings to the synchronization point?
 - Page 107 Admin Guide (Saving Information to the Synchronisation Point)
- If using AD, are you synchronizing the settings on the correct OU (Organizational Unit)?
 - Page 109 Admin Guide (Configuring an AD Synchronisation Point)
- Did you refresh/shutdown the agent after pushing the info from the console?
- What are the exact settings that are not received (send a screen shot from the console)?

Detecting application

- What type of application are you trying to detect (windows, Host emulation, Web application, Java application/applet)?
- Did you create the application definition in the console?
 - Page 61 Admin Guide (Introducing Application Definitions)
- What are the settings in use for the application definition (fields detection, sendKeys, Window matching...)? Could you send the ENTLIST.INI and AELIST.INI files?
 - You can export these file from the console by connecting to the sync point, right-clicking on the file and choose export
- Is the Host emulator compliant with HLLAPI?
- For a web application, what is the version of the web browser?

Troubleshooting Tools

- Debug log calculator – Contact Citrix Technical Support in Dublin
- MPM Tracing Tool – Contact Citrix Technical Support in Dublin
- Test Applications – Contact Citrix Technical Support in Dublin

11.4.

Related Knowledgebase Articles

- [CTX104714](#) Understanding the AutoLogonDelay Feature of Password Manager
- [CTX103976](#) Upgrading application definitions with field matching from MetaFrame Password Manager 2.0 to 2.5 version
- [CTX104565](#) SSOShell becomes Unresponsive during Reauthentication
- [CTX104571](#) XML Validation Error: Element...An error occurred at...
- [CTX103256](#) Error: MetaFrame Password Manager cannot access the shared folder that contains credential information
- [CTX103172](#) Dealing with Forgotten Passwords and Forgotten Answers to the Secret Question
- [CTX104630](#) Active Directory Synchronization and Password Manager Forgotten Answers

12. MetaFrame® Conferencing Manager

Citrix MetaFrame Conferencing Manager adds intuitive application conferencing to MetaFrame Presentation Server that eliminates the geographical distance between team members, increases the productivity of meetings, and allows easy collaboration. For the first time, teams can now share application sessions, work together on document editing, and conduct online training regardless of the location of individual team members or the access devices or network connections they're using.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=%2019&productID=8231>

12.1. Languages Supported

English

12.2. Administration Guide

- [CTX103927](#) – MetaFrame Conferencing Manager Administration Guide
- [CTX103759](#) – Secure Gateway for Windows Administration Guide

12.3. Troubleshooting Questions to Ask

Installation

- What is the error message you are receiving?
 - Send screenshot of error message
 - What components have you installed?
 - Have you installed the new features of MetaFrame Conferencing Manager 3.0 – See P14 of the Admin Guide
 - Overview of Conferencing Manager components – See P18 of the Admin Guide
- Does the server meet the necessary requirements?
 - See System Requirements section on P21 of the Admin Guide
- Are you upgrading from an earlier version of MetaFrame Conferencing Manager?
 - See P22 of the Admin Guide for more information
- Are you upgrading the Outlook Add-In
 - See P22 of the Admin Guide for more information
- Make sure the Guest Attendee Web Interface component is installed on a Web Interface 3.0 server
 - See P43 of the Admin Guide for more information

Configuration

- Microsoft Exchange server and Outlook integration considerations
 - See P26 of the Admin Guide
- Integrating Conferencing Manager with Microsoft Exchange Server and Outlook
 - See P51 of the Admin Guide
- Problems configuring MetaFrame Conferencing Manager
 - See P38 of the Admin Guide
- Licensing MetaFrame Conferencing Manager
 - See P46 of the Admin Guide

Secure Gateway Integration

- Did you install and configure Secure Gateway?
 - See P87 of the Secure Gateway Admin Guide

12.4. Related Knowledgebase Articles	<ul style="list-style-type: none">• CTX102891 Error: An error occurred while processing your request ... When a User Attempts to start a Conference• CTX101948 Error: Citrix MetaFrame Conference Manager Failed to Start• CTX103838 Error: Please verify your guest and conference IDs, and ensure that the conference has started• CTX105106 Conference Room and Conference Manager Applications are not published during install• CTX103839 How to point Conferencing Manager servers to a license server different from MetaFrame Presentation Server
12.5. Most Common Problems	<ul style="list-style-type: none">• CTX101948 Error: Citrix MetaFrame Conference Manager Failed to Start• CTX105106 Conference Room and Conference Manager Applications are not Published During Install
12.6. Other Relevant Information	<ul style="list-style-type: none">• CTX103928 MetaFrame Conferencing Manager Readme See MetaFrame Presentation Server (1.) for relevant integration questions

13. MetaFrame® Presentation Server for UNIX®

Access UNIX applications securely and remotely from any device. Citrix® MetaFrame® Presentation Server for UNIX® is the easiest way to access UNIX applications securely and remotely from any device. With Citrix MetaFrame Presentation Server for UNIX, remote, mobile, and local users in heterogeneous environments can access UNIX and Java™ applications from any device, over any connection, and no longer need multiple desktops or software emulation packages.

Citrix MetaFrame Presentation Server for UNIX supports Sun Microsystems' Solaris™ SPARC 9, Sun Solaris Intel, Hewlett-Packard's HP-UX®, and IBM's AIX®, and now includes new features to extend performance, usability and security.

<http://www.citrix.com/site/PS/products/product.asp?familyID=19&productID=1449>

13.1. Current Version

- [CTX101738](#) – MetaFrame for UNIX 1.2/Service Pack 2

13.2. Languages Supported

English, Spanish, French, German

13.3. Administration Guide

- [CTX101790](#) – MetaFrame Presentation Server 1.2 for UNIX, Administrator's Guide

13.4. Troubleshooting Questions to Ask

- What version of MPSU is running, including patches?
 - Solaris- pkginfo -l CTXSmf showrev -p command
 - AIX- smit
 - HP-UX- swlist
- What platform, and version of O/S is the MPSU software running on?
- Get details of the session which is running, including for example the version of thinwire, the X-server stores the version of thinwire running in a property on the root window. It can be found by typing this command **xprop -root | grep TWVERSION**. Establishing the actual color depth of the session is best done using the **xdpyinfo** X command.
- Are there any messages in the system error log? These errors are usually written to the file **/var/adm/messages**. However this is configurable in the file **/etc/syslog.conf**
- Many features of MPSU depend on the license installed. The output of **ctxlicense** – list is therefore always interesting

- What is the version and platform that the client is running on
- What kind of network connection are they using?
- Are the user accounts local or remote?
- Desktop or seamless?
- Colordepth? Screen resolution?
- Is there an initial app?
- Can the user send us copies of .profile (if using bourne or korn shell), .login and .cshrc (if using cshell)?
- In case the session disappears immediately, has it been disconnected, or logged off?
(after the error occurs does ctxqsession still show a disconnected session, or is the list empty)?
Output of ctxcfg is needed

Debugging techniques

- Below are some general debugging techniques. Please note that wherever you see the path /opt/CTXSmf on the AIX platform this will be /usr/lpp/CTXSmf
 - **Debug ctxsession.sh**
In /opt/CTXSmf/lib/ctxsession.sh there are some debugging hints if the session is dying before it appears on the screen. You can uncomment some lines in there to write output to a logfile. Look for the lines which start with:
exec 1>> /tmp/ctxsession.log 2>&1
and
set -x
and uncomment those lines
 - **Debug ctxXtw.sh**
In /opt/CTXSmf/lib/ctxXtw.sh you can set up debugging by uncommenting lines in a similar way as described for debugging ctxsession.sh. This can be a useful way of detecting for example that someone has passed a unrecognised argument to the X server. When the X server sees this it exits with an error message which the user never sees, he only knows he doesn't get a session. It has happened!
 - **pstack and related utilities (Solaris only)**
These utilities are available only on Solaris. Note to use these utilities you do need to be the root user. These three members of the family seem the most useful. Useful to debug Citrix processes that seems to be in a hung state or consuming a lot of resources
 - **pstack** allows a stack trace of a running process to be taken. Recent versions also allow you to dump a stack backtrace of all threads even from a core file
 - **pfiles** lists all the opened files in a process
 - **pflags** lists the state of each lwp in the process
 - **xwd/xwud**
This pair of utilities is useful for determining if display corruption is caused by a thinwire bug. If there is thinwire bug the contents of the framebuffer will not match what is displayed on the screen. Running xwd -root | xwud displays the contents of the framebuffer on the screen. Thus allowing the two to be compared.

- **Truss**

Truss is a utility which traces the system calls in a running process, and can be very useful for finding problems. It is available on AIX 5.1 onwards systems but was not available for AIX 4.3.3 where you have to use the trace system utility. This is much more cumbersome, tracing all system call activity in the system. There is a public domain version for the HP-UX platform which can be downloaded from the HP web site.

- **Generating cores from MPSU processes**

To get a core of a running process without using kill to make it crash you can use the gcore utility

- **Tracing the X protocol**

In some cases it is useful to analyze the X protocol. A utility to do this is xmon. KB article below

13.5. Related Knowledgebase Articles

- [CTX103535](#) ME113AB170 (AIX) Latest public hotfix released
- [CTX103130](#) ME113SB150 (Sparc) Latest public hotfix released
- [CTX103423](#) ME113HB150 (HP-UX) Latest public hotfix released
- [CTX104541](#) Using XMON to troubleshoot MPS for Unix issues
- [CTX103591](#) Diagnosing UNIX Server and Client Processes
- [CTX103303](#) Troubleshooting OpenGL Issues on MetaFrame for UNIX 1.2
- [CTX319752](#) How to Publish an Application on a UNIX Server of Different Architecture, or Using MetaFrame as a Proxy to Other UNIX Servers
- [CTX676453](#) Citrix MetaFrame 1.x for UNIX Look-and-feel Toolkit
- [CTX861701](#) Work-arounding PostScript files with GhostScript
- [CTX803423](#) Font Displaying Incorrectly within an ICA Session

14. MetaFrame 1.8

Metaframe 1.8 for Microsoft NT 4.0 Server Terminal Server edition

Metaframe 1.8 for Microsoft Windows 2000

14.1. Current Version

Feature Release 1 Sp 3.

Please refer to article CTX2195 – Installation Guide – Feature Release 1 and Service Pack 3 for Citrix MetaFrame for Windows Version 1.8 – English

14.2. Languages Supported

English, French, Spanish, German

14.3. Administration Guide

- [CTX101626](#) – MetaFrame 1.8 for Windows NT Terminal Server Administrator's Guide

14.4. Migrating From MetaFrame 1.8 to MetaFrame XP

- [CTX19343](#) – Migrating from MetaFrame 1.8 to MetaFrame XP

14.5. Troubleshooting Questions to Ask

Gather general information

- What are the details of your environment – size of server farm, WinNt4 TSE, Win2000? Wan, Lan, Service Packs
- Type of ICA clients in use
- What is the exact issue that you are having? (What is happening – what should happen?)
- What are the exact steps to reproduce the issue?
- When did it start? What triggered the issue?
- Who is affected by issue (Administrators and users)?
- Do you get an error (send screenshot) or an event in the Event Log?
- Can the issue be reproduced at the server console?
- Can the issue be reproduced when using RDP?
- What troubleshooting steps have you taken to resolve this issue?

Troubleshooting Installation

- Where in the install did the failure occur?
(Send a screenshot of the last panel seen before the failure occurs)
- Please obtain and send the %systemroot%\system32\icatrace.log file
- Are there any errors recorded in the event viewer? If so, please obtain and send
- Is the customer installing from the CD or a network share?
Does it work if the CD is copied to the server?
- What account was used during the install?

Troubleshooting connectivity issues (see also ICA Browser issues)

- Is it the same behavior with a local account from the server? With an admin account?
With a brand new user account?
- Can you ping the server and telnet the ICA port (1494 by default)
- Can you connect using RDP?
- Can you do a direct connection to the server? Using its NetBIOS name? IP address?
- Does a loopback connection work (ICA connection from the server console back to the same server)
- Can you delete and create a new ICA listener from the Citrix Connection Configuration tool?
- Can you do a network trace of a successful and unsuccessful session?
(Tracert for use see command reference)

ICA Browser Issues

- Can user access application set?
- Have any servers been added to or removed for his domain?
- Is user using Multihomed Computers Refer to article [CTX568182](#) Multihomed Computers and IMA and ICA BROWSER?
- Is the user using Gateways / what configuration? Can he access application sets on other subnets?
Please refer to article [CTX426129](#) Load Balancing and ICA Gateways on MetaFrame 1.8 Explained
- Has he placed any IP addressing information in the server location tab of the client?
- What message does the user receive when trying to connect to application sets?
- Check the status of ICA browser service in Event Viewer
 - Send details of any errors
- How has the user configured the browser settings in the enterprise –
Does the user use dedicated master browser

Troubleshooting Printing Issues

- What kind of printer is it? Client autocreated/Client network printer/network printer
- What is the make and model and driver of the printer?
- Is the driver installed on the MF server? (check in Print Server Properties I Drivers tab)
- [CTX681954](#) – Troubleshooting Citrix ICA Printer Autocreation – for autocreation issues
- [CTX959786](#) – User Defined Printer Properties – for printer settings issues

Questions for Application Install & Integration Issues

- What is the name and version number of the application?
- If the app is custom app, what language was it written in? Is it a 16bit or 32bit app?
Any other app details?
- Is this application a multi-user application (Check with vendor)?
- Does the app run properly when you are logged in at the console?
- Do you have the same issue when you connect to a desktop?
- Do you experience the same problem using a seamless connection?
A fixed sized window? Color depths?
- Is it working with a RDP client?
- Was the application installed using Add/Remove Programs? (change user/install mode)
- [CTX101709](#) – How to Troubleshoot Application Integration Issues

Troubleshooting Performance Issues/Server Lock-ups

- What kind of server (IBM, Compaq, Dell, etc) and how much CPU and RAM?
- Under what conditions is the server lock up seen?
- Does the slow down occur when connected using RDP?
- Is the server blue screening? What STOP code?
- Does the Event Viewer show any entries just before the slow down or trap occurs?
- Is a memory dump created? If not can you create one?
- Can you see which Process and thread (TID) is hogging CPU using Qslice? (from Windows Resource Kit)
- Can you get a user dump of process that is using high CPU – (Q278689) FTP to Citrix site – details available from Citrix Technical Support in Dublin
- Troubleshooting blue screens – (Q216206)
- If a process crashes and a Dr. Watson generates a dmp (Q308538 & Q246084) FTP file to Citrix site – details available from Citrix Technical Support in Dublin
- If your server crash is caused by Citrix then FTP the memory.dmp or user.dmp
HYPERLINK to Citrix FTP site – details available from Citrix Technical Support in Dublin

14.6.

Related Knowledgebase Articles and Common Problems

- [CTX101892](#) Application Troubleshooting in a MetaFrame Environment
- [CTX564283](#) How to Troubleshoot 1003 and 1004 Terminal Server Licensing Errors
- [CTX040083](#) Troubleshooting and Explaining Citrix ICA Shadowing
- [CTX159159](#) Troubleshooting and Explaining Session Sharing
- [CTX457309](#) MetaFrame 1.8 and MetaFrame XP Drive Remapping Best Practice
- [CTX424827](#) Troubleshooting and Installing the Citrix Web Console
- [CTX104216](#) Troubleshooting and Optimizing Digital Dictation
- [CTX086028](#) Troubleshooting Client Clipboard Issues
- [CTX881017](#) Troubleshooting MetaFrame XP Imported Network Print Servers
- [CTX103126](#) Troubleshooting Server to Client Content Redirection
- [CTX104891](#) Troubleshooting Slow Logoff
- [CTX101705](#) Troubleshooting Slow Logons
- [CTX051476](#) Troubleshooting the Deletion of AutoCreated Printers
- [CTX238200](#) Troubleshooting Various Client Drive Mapping Issues

15. MetaFrame 1.8 Licensing

15.1. MetaFrame 1.8 Licensing

- Uses 'V4' licensing
- V4 licenses are in the following format:
 - XXX-XXXX-XXXX-XXXX-XXXXXX (3x4x4x4x6)
 - E.g. ESC-0004-1095-1234-000123
- The license does not become active however until a machine code is created
- Enter the V4 license in the MF1.8 Citrix Licencing Console. A 'Machine Code' is then generated, which adds two additional numeric quartets to the original license e.g.
 - ESC-0004-1095-1234-000123-xxxx-xxxx
- The license code with the machine code needs to be entered on www.mycitrix.com to produce a valid 'Activation Code'
- Add the license (along with the new Activation Code) to the License Manager.
License has been installed!

- NOTE:**
- If the last number of the 2nd quartet ends with anything **other than 4**, e.g. a '0', then the license is probably illegal!! – Contact Citrix Technical Support in Dublin
 - License numbers are stored on a MF1.8 server in the HKLM registry key at :
 - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\
 - Control\Citrix\License
 - Each server gets a server license that has to be physically entered on the server under the HKLM. If the registry gets corrupt/the server's disks crash, the licenses are most likely lost
 - Under MetaFrame 1.8, each of the other components e.g. FRs, RMS, IMS and Load Balancing require activation licenses which are stored in the registry
 - Connection licenses are pooled across all servers in a farm and can be entered on any server
 - When a given server is down, that server's allotted licenses are not available to the farm

15.2. Migrating Licenses from MF-1.8 to MF-XP

- You **must** have a valid Subscription Advantage sub for the MF-1.8 licenses
- Depending on which version of XP you are purchasing (XPs, XPa or XPe), one of the following product licenses must be present on your MF-1.8 system:
 - Load Balancing Services (XPa)
 - Resource Management Services (XPe) or
 - Installation Management Services (XPe)
- Upgrading from MF-1.8 to MF-XP Standard Edition requires no additional licenses (apart from the new XP ones)
- The migration is done via the www.mycitrix.com website (see CTX103266)
- Only connection licenses are migrated over. Your copy of MF-XP already has its own server license included, therefore *server licenses are never migrated*
- The fulfilment of the licenses on the mycitrix site generates a connection migration license with the same amount of the original MF-1.8 licenses
- An example of a migration license is: **E42YZ-2522K**-43FH2-22?5G-@F56*
 - This license is for the **English** language version on MF-XP ("**E**")
 - It is a Citrix issued license ("**42**")
 - The customer subscribes to Subscription Advantage ("**Y**")
 - It is a connection license, not a server one ("**25**")
 - The license is for 15 concurrent users ("**K**")
- When upgrading to MF-XP from MF-1.8, you must add the original 1.8 licenses along with the new MF-XP ones in the Management Console
- Overall, the total connection license count is the only thing that is relevant (regardless of whether they were once MF-1.8 licenses or XP, or even MPS licenses)

16. Contacting Citrix Technical Support

16.1. Your Citrix Technical Support Checklist

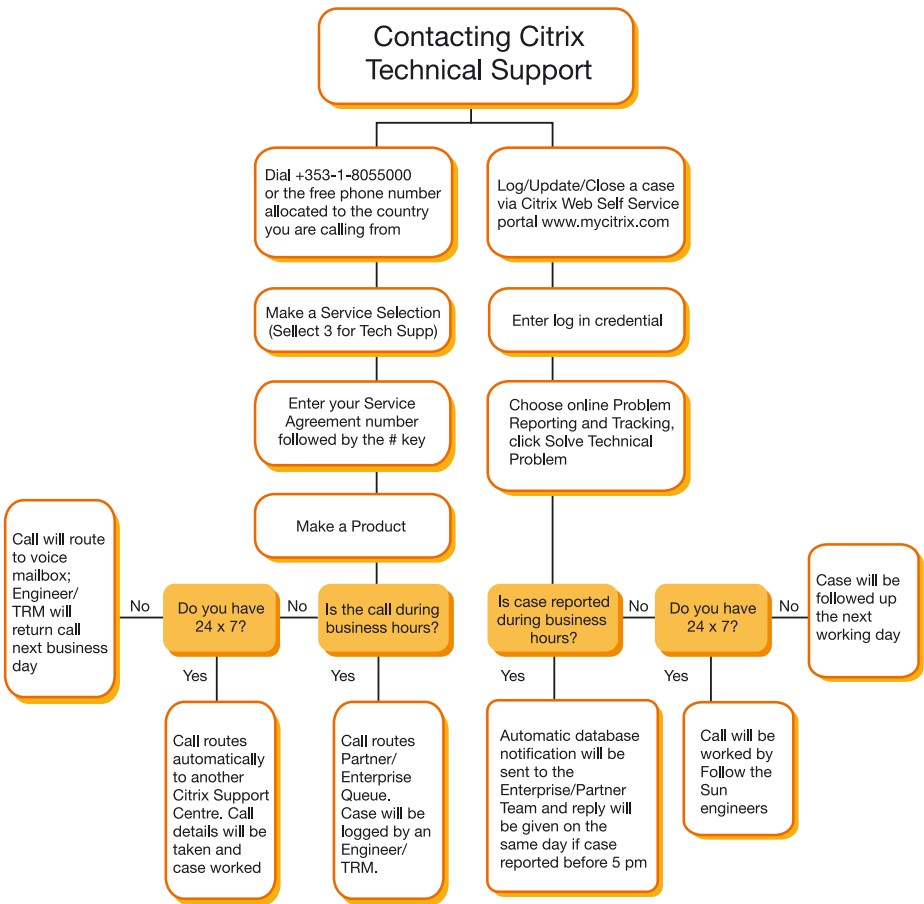
The Citrix Technical Support Team is dedicated to helping resolve your IT issues quickly and accurately. To facilitate prompt service, we ask that you keep this checklist of required information close by for reference when you call. Please refer to your Citrix Technical Support ID Card for specific contract information and contact numbers for the support center in your region.

<ul style="list-style-type: none">• Service agreement number
<ul style="list-style-type: none">• Description of issue
<ul style="list-style-type: none">• Product version<ul style="list-style-type: none">• service pack level• hotfixes
<ul style="list-style-type: none">• ICA® Client version<ul style="list-style-type: none">• operating system version• service pack level
<ul style="list-style-type: none">• Server operating system version<ul style="list-style-type: none">• service pack level• hotfixes
<ul style="list-style-type: none">• Web server operating system version<ul style="list-style-type: none">• service pack level• hotfix
<ul style="list-style-type: none">• Steps to reproduce issue and troubleshooting diagnostic steps taken
<ul style="list-style-type: none">• Last changes made to server and/or server farm
<ul style="list-style-type: none">• Network configuration

In the event that remote access by one of our Citrix Technical Support Engineers may be necessary, the following may speed up the troubleshooting process:

- An account with administrative rights
- Dial-in information
- VPN information

16.2. Contacting Citrix Technical Support via Telephone



Contact Details

PHONE

General number:
00353-1-8055200

Country	Free phone
Austria	0800 292 518
Belgium	0800 72275
Denmark	80 88 46 16
Finland	0800 117093
France	0800 91 81 15
Germany	0800 182 5549
Ireland	1 800 509 215
Italy	800 783981
Luxembourg	800 2 3378
Netherlands	0800 022 5829
Norway	800 10882
Portugal	800 844 100
South Africa	0800 99 1235
Spain	900 96 8942
Sweden	0200 285432
Switzerland	0800 564 652
UK	0800 587 9031

16.3. Contacting Citrix Technical Support via Telephone

Online problem reporting and tracking (OPRT)

Available for ISV Preferred Plus, ISV Preferred Extend, ISV Preferred 25, SI Preferred Plus, SI Preferred Extend, SI Preferred 25, CSA Gold, CSA Platinum, Distributor, ASC Support

Web feature that enables a customer to open an incident, check on the status of an incident and update contact information.

Features of OPRT

- Open new cases via the internet
- Add notes to existing cases
- Track the status of cases
- Manage your contact information
- Close resolved incidents

How to access OPRT?

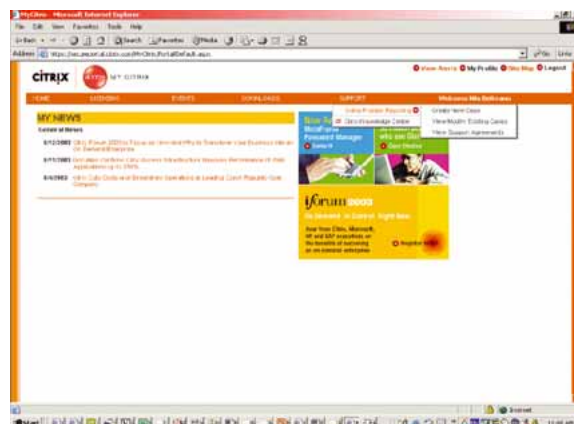
To access this service, a customer will need to login to the MyCitrix portal at the following website address:

<http://www.mycitrix.com/>

Once a customer clicks on the site, they will be prompted to provide their username and password. This username and password will have been distributed via e-mail when they first created an account on MyCitrix. If they have not received any logon information or are having problems accessing the service, they will need to contact Citrix Customer Care at the email listed on the website.

Response Times

- Issues will be addressed during the same day business hours when call is logged before 5pm GMT
- Urgent issues should always be logged by telephone to ensure appropriate response



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About Citrix: Citrix Systems, Inc. (Nasdaq: CTXS) is the global leader in access infrastructure solutions and the most trusted name in secure access for enterprises and individuals. Nearly 50 million people in more than 120,000 organisations around the world use Citrix every day. Citrix software gives people secure and well-managed access to business information wherever it lives on demand. Citrix customers include 100% of the *Fortune* 100 companies, 99% of the *Fortune* 500, and 92% of the *Fortune* Global 500. Based in Fort Lauderdale, Florida, Citrix has offices in 22 countries, and more than 7,000 channel and alliance partners in more than 100 countries. For more information visit www.citrix.com.

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